

Bay Area Dioxins Project



Association of Bay Area
Governments

Summary of Discussions TASK FORCE MEETING January 22, 2002

Attending the meeting were:

Nabil Al-Hadithy, City of Berkeley*
Davis Baltz, Commonwealth
Michelle Buzbee, LWA+
Betsy Elzufon, LWA+
Pamela Evans, Alameda County*
Michael Green, Center for Environmental Health +
Michael Kent, Contra Costa County Health Services
Jennifer Krebs, ABAG Staff*
Niko Letunic, City of Oakland*
Michael McMillan, Port of Oakland*
Kelly Moran, TDC Environmental+
Katie Silberman, Center for Environmental Health +
Michael Smith, ABAG Staff
Julie Weiss, City of Palo Alto*
L.A. Wood, Berkeley Environmental Committee

(+ task force consultant, * task force member)

Welcome/Introductions

Jennifer Krebs convened the meeting and welcomed Task Force members and the public. The Summary of Discussions for the October 16, 2001 Dioxins Task Force meeting were distributed.

Public Comment Period - Speakers

- L.A. Wood, Berkeley Environmental Committee

Information Sharing

Pam Evans stated that Alameda County will be voting on their Persistent Bioaccumulative and Toxics (PBT) resolution on **January 29, 2002 at 9:30 am.**

Kelly Moran distributed materials on a potential source of grant funding for a local pollution prevention project through the Department of Energy's (DOE) Clean Cities Program. Kelly noted that in order to qualify for the grants a municipality would need to be a DOE recognized Clean City in order to receive funding. A city that is not currently a Clean City can qualify for the grant once they go through the process of becoming a Clean City.

Legislation & Governmental Organization Committee (L&GO) Meeting (1/17/02)

Jennifer reported that the L&GO Committee would like the Bay Area Air Quality Management District (BAAQMD) to play a more active role in the efforts of the Dioxins Task Force. Committee chair Supervisor Scott Haggerty distributed a letter from Ellen Garvey, BAAQMD Executive Officer, with the District's responses to a number of questions that Supervisor Haggerty had about BAAQMD's involvement in preparing the *Screening Evaluation of Dioxin Pollution Prevention Options* report, what

the largest sources of dioxin in the Bay Area were, what the Bay Area dioxin exposure levels are compared to the rest of the country, what BAAQMD feels would most reduce dioxin exposure in the Bay Area, as well as what studies BAAQMD are currently undertaking to measure dioxins in the Bay Area and if they feel that the Task Force's efforts should be held up until BAAQMD finishes its studies.

The L&GO Committee moved to forward the Screening Evaluation report to the BAAQMD for review as to the report's completeness and accuracy. The three L&GO Committee members who also serve on the Air Resources Board (William Carroll, Scott Haggerty, and Julia Miller) felt that they should be able to get a response back by the March L&GO Committee meeting.

The Task Force members felt that BAAQMD's involvement in the process was good and that their review would be valuable when bringing the report to their local officials.

Medical Waste Project Update

Kelly Moran began her update by noting that IES (the company that ran a waste incinerator in the City of Oakland) was bought out by Stericycle. As a result of the buyout, the Oakland incinerator was shut down and Bay Area medical waste is being incinerated by Stericycle at facilities in Salt Lake City and/or Arizona. Kelly went on to say that Stericycle also runs autoclave facilities that can serve as alternatives to incineration. Mike Green of CEH has information on the contracted technologies that various Bay Area health care facilities requested of IES. Stericycle may recommend that some facilities switch from incineration to autoclaving and microwaving. Kelly proposed that the Dioxins Task Force work with the Healthcare Pollution Prevention Project to take advantage of their expertise on how hospitals manage their waste. Task Force members thought the Healthcare Pollution Prevention Project was a natural group to work with and supported the proposal to make the Medical Waste Project a joint project.

Kelly then gave a summary of the work plan for the Medical Waste Project and identified the anticipated sources of information for use in developing the project. (Attachment A)

Purchasing Preference Project Update

Michelle Buzbee and Betsy Elzufon gave the update for the Purchasing Preference Project. (Attachment B) Michelle presented a list of alternatives for different types of paper commonly used in offices and a list of PVC alternatives for different building products. These lists are to be used by the Task Force when determining which items to focus on as part of the project. In earlier meetings, the Task Force had determined that focusing on 3-4 products would make the project more effective.

After reviewing the list of alternatives for the different types of paper the Task Force directed the consultants to focus on copy paper (most common item) and toilet paper (potential local environmental effect through sewage systems). The Task Force members wanted more time to evaluate the PVC building product alternatives before recommending which items to focus on. Nabil suggested that Task Force members consult their Building Department for assistance in determining what materials are most commonly used in their jurisdiction. Kelly reminded the Task Force that implementation measures are key to the success of the pollution prevention projects. She suggested that members look at remodel projects within their jurisdiction as well as new construction projects.

Michelle also requested that the Task Force members complete a questionnaire that will assist the research and development of the Purchasing Preference Project by specifically identifying what products they are most interested in, what options they have in considering alternatives, what their procurement systems are, what specific projects they have coming up, etcetera.

The Task Force members agreed to return their questionnaires within two weeks (February 1st). Staff will send a reminder notice to all Task Force members on January 29th or 30th.

Diesel Alternatives Project Update

Kelly Moran provided an update on the Diesel Alternatives Project. The first item that she mentioned was the effect that the state budget crisis has had on available funding. Normally, grant funding applications are released around this time of year. Because of the budget problems, grant funding has been shut-off with grants being either postponed or defunded. She went on to mention the Carl Moyer Program specifically. The Carl Moyer Program, a program that offers grants to projects intended to reduce emissions from heavy-duty engines, may be defunded by the legislature this year and may have its funding reduced next year.

Kelly also suggested that if the Task Force budget is too tight, the Diesel Alternatives Project could possibly be cut to provide more funds for research and technical support for ABAG's work with its L&GO Committee. The Task Force did not feel that a budget cut was necessary and did not wish to cut this project. The Task Force directed TDC Environmental to continue with its approved workplan.

April Conference/Workshop

Jennifer Krebs asked the Task Force what they thought about working with the Environmental Protection Agency (EPA) to put on an information conference/workshop for local officials and the public in April 2002. The event would focus on providing the audience with an overview of the latest findings on dioxin production and the related environmental and health effects.

Pam Evans felt that any conference/workshop that the Task Force helped to organize should include an update of the activities and programs they are working on. Kelly Moran asked if the event was going to focus on the problem or solutions. Jennifer responded that the focus was going to be on the problem of dioxins. Kelly then suggested that it would be important to include a significant solutions component to the event so that attendees can learn what can be done to address the problem.

The Task Force members agreed that they were interested in coordinating an event with the EPA but felt that April was too soon to hold an effective event. The Task Force agreed to place the dioxins conference/workshop issue on their agenda for the March Dioxins Task Force meeting.

Budget, Work Plan Update

Jennifer Krebs presented an update of the budget and work plan for the Dioxins Task Force. (Attachment D) The Task Force members accepted the work plan and several jurisdictions stated that they intend to continue to fund the efforts of the project.

Public Comment Period - Speakers

- Davis Baltz, Commonweal
- L.A. Wood, Berkeley Environmental Committee

Adjournment

Next meeting March 28, 2002, 10:00am, ABAG Office, Conference Room B

Bay Area Dioxins Project/Healthcare Pollution Prevention Project

Joint Medical Waste Management Project

DRAFT Plan of Action

Step 1: Develop Background Information

Consultant will collect Bay Area-specific information about medical waste management alternatives, costs, vendors, and regulatory requirements available to hospitals.¹ See attached outline for a detailed list of the types of information that will be collected.

Step 2: Develop written materials

Consultant will develop a handout or brochure providing convenient, Bay Area-specific information about medical waste management alternatives, costs, vendors, and regulatory requirements available to Bay Area hospital managers. The target audience for the written material will be hospital environmental health and safety managers.

Steps:

- Outline: Consultant will prepare a detailed outline and review with both Healthcare Pollution Prevention Project and Dioxins Project participants
- Draft text: Consultant will prepare a first draft of materials
- Review: Consultant will seek review of the draft text from both Healthcare Pollution Prevention Project and Dioxins Project participants, as well as other target audience members (as possible, will ask project participants for assistance in finding willing reviewers).
- Finalize: Revise text, screencheck with selected reviewers, and finalize.

Consultant will obtain written materials from Healthcare Pollution Prevent Project members regarding healthcare pollution prevention. Such materials will be provided to municipalities at the training session (Step 3) and for us in project implementation (Step 4).

Loose end: Funding for printing, layout, and graphics has not been identified. With the current budget, a text-based handout can be prepared that will be suitable for photocopying and for electronic distribution.

Step 3: Training for Municipality staff

Consultant will provide training session for municipality staff on medical waste management alternatives at a session organized by ABAG or municipality staff.

The target audiences will be:

- municipality staff that will be conducting individual municipality implementation actions and

¹ The budget assumes that the consultant will receive substantial assistance from the California Department of Health Services (DHS) and from the Healthcare Pollution Prevention Project participants, and that consultant will rely on existing technical information about waste management alternatives.

- municipality environmental inspectors that are currently visiting hospitals (e.g., wastewater, fire, and hazmat inspectors).

Medical waste management training materials prepared by consultant will be distributed in electronic form for future use by municipalities.

To be determined: If Healthcare Pollution Prevention Project participants want to provide training on medical waste reduction or other elements of hospital pollution prevention as part of this training event.

To be determined: Who will organize and host training event.

Step 4: Support individual municipality implementation actions

Consultant will provide technical support for individual municipality project implementation actions:

- Alameda County—Alameda County's two hospitals will serve as the primary implementation sites for the project. Consultant will assist Alameda County in working with its two County hospitals to evaluate medical waste management alternatives. Consultant will attend an initial meeting, follow up meetings on site at each hospital, and then provide technical support to the County through the evaluation process, for a total of up to 40 hours.
- Palo Alto—consultant will attend a meeting with hospital environmental health and safety representatives to present materials on medical waste management alternatives and to answer questions, for a total of up to 3 hours.
- Berkeley—consultant will attend two meetings (one with Alta Bates Hospital representatives, one with City Health Department representatives) to present materials on medical waste management alternatives and to answer questions, for a total of up to 6 hours.
- Oakland—Consultant will attend a meeting with hospital environmental health and safety representatives to present materials on medical waste management alternatives and to answer questions, for a total of up to 3 hours.

Consultant will provide each municipality participating in the Bay Area Dioxins Project with a list of hospital contacts based on the list developed by CEH for the Healthcare Pollution Prevention Project.

Step 5: Project evaluation

With the assistance of participating municipalities and hospitals, the consultant team will evaluate the project and prepare a written case study. Information needed from municipalities and hospitals will include medical waste volumes, cost information and project evaluation interviews or surveys.

Attachment A

Schedule (starts when project scope approved, October 16, 2001):

Activity	Schedule
Coordinate with Healthcare Pollution Prevention Project	Meet bimonthly throughout project
Develop technical, regulatory and cost information on medical waste management alternatives	1 st –3 rd Quarter
Hold training session for municipalities about medical waste management alternatives	4 th Quarter
Work with municipalities to promote adoption of medical waste management alternatives to hospitals	3 rd -4 th Quarter
Evaluate results and prepare case studies	5 th Quarter

Bay Area Dioxins Project/Healthcare Pollution Prevention Project

Joint Medical Waste Management Project

Background Facts (from California Department of Health Services):

- *About 90% of California hospitals currently manage essentially all of their regulated medical waste off-site. The majority of these wastes are managed by incineration. The two other common options are autoclaving and microwaving.*
- *About 10% of California hospitals currently manage most of their regulated medical waste on-site. Almost all of those hospitals use autoclaves; one hospital has a microwave unit. These hospitals send pathological, chemotherapy and pharmaceutical wastes off-site for incineration (which is currently the only legal option for these 3 waste streams).*

List of Issues to be covered by written materials ***Draft for review***

- A. **Why change?** Motivators for evaluation of medical waste treatment methods (cost, opportunity provided by seismic safety upgrades, change in availability of off-site incineration, change in availability of off-site alternatives, community/municipality interest). Why incineration is a concern for municipalities (emphasize community health).
- B. **P2 and Waste Segregation First.** When the document is written, it will contain a strong message that prevention, reduction, and segregation are the first steps in waste management. Waste segregation is important with any treatment technology to prevent pollutant releases to the environment. Preparing this section will involve assembling existing resources (no new material). The focus is to cross reference to other materials, including things like the waste management hierarchy and possibly PVC reduction information.
- C. **Waste Management Decision.** Issues for managing treatment: on-site treatment, off-site treatment by a vendor, potential for different management for selected waste streams, possibility of teaming with other medical facilities to provide one hospital-controlled waste treatment option. Provide overview of main issues and pros and cons for hospital decision-making.
- **Management Issues:**
 - Off-site treatment: regulations/permits, patient record confidentiality, traffic, accidents/incidents, vendor record (generally less control—control via contract—but less staff responsibility)
 - On-site treatment: worker/environmental safety issues, regulations/permits, physical space, staffing, noise and odors, releases/discharges, management oversight, patient record confidentiality; downtime/repairs, traffic, accidents/incidents (generally more control, but more staff responsibility)
 - Considering all wastes, rather than as isolated individual waste streams

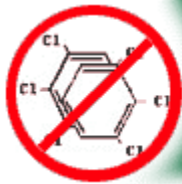
- Costs (identify cost types):
 - For hospital-managed treatment: purchase, installation, operation, permitting, utilities, disposal of residuals (transportation/tipping fees) and effluents (sewer permits/fees/treatment)
 - For vendor treatment: transportation, treatment, disposal, taxes, tipping fees

D. Technologies: Nuts & bolts. Information on medical waste treatment methods (other than incineration). Review will focus on the major technologies (autoclaving and microwaving); references to information sources about other technologies will be provided.

- How each works, which types of wastes are treated
- Operational pros & cons
- Treatment efficacy (emphasis on this issue, a key one for the publication's audience)
- Environmental, health and safety issues (workers, emissions, residuals, other releases/discharges,)
- Regulations, permits, and reporting requirements
- Record of vendors and technologies
- Other issues (noise, odor, etc.)
- Vendors
- Costs

Anticipated information sources:

- DHS staff and electronic resources
- Health Care Without Harm report, *Non-Incineration Medical Waste Treatment Technologies*
- Interviews with vendors (priority will be Stericycle and vendors of commonly used technologies)
- Interview hospital representatives participating in HCP2 project
- California law and regulations (translated with assistance from DHS)
- H2E Listserv participants (I will ask questions and evaluate responses)
- *Others?*



Bay Area Dioxins Project



Association of Bay Area
Governments

Date: January 16, 2002

To: Task Force Members

From: Michelle Buzbee

RE: Purchasing Project Options

My goal for Tuesday's meeting for the Purchasing Project is to select a few paper and building products to focus on, in order to obtain more detailed information and pursue purchase options. I am proposing look at 2 paper products and 2 building products. Therefore, we need to narrow down which products people are most interested in purchasing and get some additional information.

Therefore, in preparation for Tuesday's meeting and in order to make it as productive as possible, I have created a questionnaire for you to fill out. If your are able, you could fill this out this week and fax or email to me. Otherwise, if you could at least review it and bring your responses to the meeting, I think we'd have a much more productive meeting than if we started from scratch on Tuesday. Also, some of you may need to talk to your staff to obtain some of this information; by sending this out today I hope you may have time to do that.

Directions: There are 3 spreadsheets in this workbook: 1) "Questions": A list of questions. Please try to answer the following questions as best as you can or forward them to the appropriate person. Spreadsheets 2)"Paper" and 3)"PVC" in this workbook provide information on product options.

ABAG Dioxins Task Force

GOAL: Our goal in the upcoming Dioxins Task Force meeting (1/22/02) is to select a few paper and building products to focus on, in order to obtain more detailed information and pursue purchase options. I am proposing we look at 2 paper products and two building products. Therefore, we need to narrow down which products people are most interested in purchasing and get some additional information from you. Please try to answer the following questions as best as you can or forward them to the appropriate person. Please see spreadsheets "Paper" and "PVC" in this workbook for information on product options.

MUNICIPALITY:	
NAME/TITLE:	

QUESTION	ANSWER
Paper (please see "Paper" spreadsheet):	
What types of paper products are you interested in buying PCF?	
How much of each type of paper would you be purchasing at a time and per year?	
Are you interested in requiring purchase of the PCF product or only making it available?	
Are you interested in setting up a long-term contract to purchase?	
Do you want to buy paper that is made partially from alternative materials (e.g. cotton, kenaf)?	
How does your paper procurement system work? How many different departments have the authority to purchase paper products? Do you run your own printshop or have purchasing contracts in which you could specify such products with an outside printshop?	
How much more are you willing to pay over your current prices for PCF products (%)?	
Any other information you'd like to provide:	
Alternatives to PVC Building Products (please see "PVC" spreadsheet):	
For those of you with green building programs, which building materials are you interested in?	
Have you already been involved in purchasing any of these alternative products?	
Do you have any current/upcoming project that could serve as a pilot project? What is your timeline?	
Which of these products are you most interested in getting more information about (1 or 2)?	
How much more are you willing to pay over your current prices for alternatives to PVC products (%)?	
Are you in favor of focusing on building products or are there other PVC-alternative products you are more interested in?	
Any other information you'd like to provide:	

PCF Paper Products

Brand Name	Mill (local distrib)	% Total Recycled Fiber	% Post Consumer Fiber	% Tree Free, Type	Chlorine Free	Certs	Acid Free	Brightness	Colors	Finish	Web Basis Wts	Sheet Basis Wts	Price	Price Quote Basis
UNCOATED PAPERS														
COPY/OFFICE MACHINE PAPERS														
Envirographic 100 Copy/Bond	Badger (New Leaf)	100	100		PCF		Yes	85	White, Colors	Smooth	20, 24	20, 24		
Eureka!™ 100 Copy/Bond	Georgia Pacific/Fort James (Spicers)	100	100		PCF		Yes	84	White			20		
Encore 100 Copy/Laser	Badger (New Leaf)	100	100		PCF		Yes	85	White			20	\$29.50-34.50/case	RPPC (1/9/02)
New Life Dual Purpose Copy/Bond	Rolland	80	60		PCF	Eco Logo, CFPA	Yes	84	White			20		
Downtown Paper #3 Copy/Laser	Arbokem Canada	50	50	50% wheat/rye straw	PCF		Yes	82	White	Smooth	50	50		
TEXT AND COVER PAPERS- letterhead, brochures, invitations, other kinds of communications; most appropriate for printshops														
Naturals	Domtar	100	20		PCF		Yes		Colors	Smooth, Lined	60-80, C80	60-80, C80S		
Sandpiper	Domtar	100	100		PCF	Eco Logo	Yes		OffW, Colors	Vellum	60-80, C80	60-80, C80		
Quest	Fox River Paper	100	100		PCF	Eco Logo	Yes		Offwhite, Colors	Vellum		70-80, C80, DC80		
Everest	New Leaf	100	100		PCF		Yes	90	White	Vellum	50-80, C80	80, C80		
Closed Loop	Geo. A. Whiting	100	50		PCF		Yes		White, Colors	Smooth	75, C90	75, C90		
Banana Fiber Paper	Costa Rica Natural	95	95	5% banana fiber	PCF	SCS			Natural White w/ Flecks			32, 56		
Coffee Paper	Costa Rica Natural	95	95	5% coffee beans	PCF	SCS			Marbelize d White			32, 56		
Continuum Kenaf Natural	Crane & Co.	50	0	50% cotton rag, 50% kenaf	PCF				Natural			80, 90		
Green Fields	Green Field Paper Co.	100	75	25% organic cotton	PCF		Yes		White	Smooth		60, C70		
Hemp Heritage	Green Field Paper Co.	100	75	25% cotton rag, 25% hemp	PCF		Yes		Natural White	Smooth		60, C70, C120		
Java	Green Field Paper Co.	95	5	5% coffee bean chaff	PCF		Yes		Speckled	Smooth		70, C70		
Vanguard Eco Blend (TM)	Living Tree	75	75	25% hemp	PCF			83	Natural White	Smooth		60, 80, C80		
Vanguard Recycled Plus (TM)	Living Tree	90	90	10% hemp	PCF			91		Smooth		60, 80, C80		
WRITING/SCRIPT PAPERS- the lighter-weight segment of Tex and Cover paper; more appropriate for laser printers and photocopiers; correspondence and letterhead														
Sandpiper	Domtar	100	100		PCF	Eco Logo	Yes		OffW, Colors	Vellum	24	24		

PCF Paper Products

Brand Name	Mill (local distrib)	% Total Recycled Fiber	% Post Consumer Fiber	% Tree Free, Type	Chlorine Free	Certs	Acid Free	Brightness	Colors	Finish	Web Basis Wts	Sheet Basis Wts	Price	Price Quote Basis
Quest	Fox River Paper	100	100		PCF	Eco Logo	Yes		Offwhite, Colors	Vellum		24		
Everest	New Leaf	100	100		PCF		Yes	90	White	Wove	20-32	24	\$16.55-\$18.61/1000 sheets	New Leaf (1/14/02)
Banana Fiber Paper	Costa Rica Natural	95	95	5% banana stalk fiber	PCF	SCS			Natural White w/ Flecks			24, 32, 56		
Cigar Paper	Costa Rica Natural	95	95	5% tobacco residue	PCF	SCS			Terracotta			24		
Coffee Paper	Costa Rica Natural	95	95	5% coffee beans	PCF	SCS			Marbelized White			24, 32, 56		
Continuum Kenaf Natural	Crane & Co.	50	0	50% cotton rag, 50% kenaf	PCF				Natural			24		
Vanguard Eco Blend (TM)	Living Tree	75	75	25% hemp	PCF			83	Natural White	Smooth		24		
Vanguard Recycled Plus (TM)	Living Tree	90	90	10% hemp	PCF			91		Smooth		24		
COMMODITY OFFSET PAPERS- communications and advertising such as direct mail, bills, reports, magazines														
Ecoprint Offset White (avail. only for major print jobs)	Ecoprint	100	100		PCF		Yes	85	White	Smooth		60,70		
IPA EcoOffset (through membership buying co-op only)	Independent Press Association	100	100		PCF		Yes		White		50-60			
Manistique 100	Manistique	100	40+		PCF	CFPA	Yes	65,70,75	Off-White		35-60			
EcoOffset	New Leaf	100	100		PCF		Yes	85	White		50-70		\$71.30-\$86.80/100 lbs.	New Leaf (1/14/02)
Re:Vision	Vision Paper	100	30	30% kenaf	PCF		Yes	72	Natural	Vellum	60,70,80, C80			
Re:Vision	Vision Paper	100	50	50% kenaf	PCF		Yes	72	Natural	Vellum	60	60,70,80, C80		
OPAQUE PAPERS- Higher-quality offset with higher opacity; printing books and magazines that are published on uncoated paper; financial prospectuses, bank and stock reports														
Artopaque	Badger	50	30		PCF		Yes	88	White	Smooth, Vellum	40-70	40-70		
Ecoprint 70# Offset Opaque (avail. only for major print jobs done at Ecoprint)	Ecoprint	100	100		PCF		Yes	85	White	Smooth		70		
New Leaf Opaque	New Leaf	100	50		PCF		Yes	90	White	Satin, Smooth	50, C62		\$71.88-\$88.90/100 lbs.	New Leaf (1/14/02)
Downtown Paper #3	Arbokem	50	50	50% straw fiber	PCF		Yes	82	White	Smooth	50-70	50-70		
ENVELOPE PAPERS- intended to go directly to converters to be made into standard envelopes; envelopes can also be made from Text and Cover paper														
Everest	New Leaf	100	100		PCF		Yes?					10	\$36.60-\$41.18/1000	New Leaf (1/14/02)

PCF Paper Products

Brand Name	Mill (local distrib)	% Total Recycled Fiber	% Post Consumer Fiber	% Tree Free, Type	Chlorine Free	Certs	Acid Free	Brightness	Colors	Finish	Web Basis Wts	Sheet Basis Wts	Price	Price Quote Basis
Initiative 100 Envelope	Manistique	100	100		PCF	CFPA	Yes	60-75	OffWhite		24			
Denim Paper for Envelopes (NOTE: Must specify content)	Watson Paper	100	0-50	50-100% pre-consumer denim	PCF		Yes		Blues (3)	Calender	By request	32, 64, 80, 110		
BATHROOM PAPERS*														
Envision	Fort James	100	90-95		unbleached				paper;					
	Wisconsin Tissue	100	100		unbleached				toilet paper;					
Second Nature														
EcoSoft	Bay West	100	20-40		PCF				paper;					
	Seventh Generation	100	35-100		unbleached and PCF				toilet paper;					
	Atlantic Packaging	100	50		PCF				toilet paper;					
April Soft/Fiesta Chantilly, Envillogic, Sup-R-Bulk	Wood Wyatt Inc.	100	95		PCF				toilet paper;					
COATED PAPERS														
Is anyone interested in pursuing purchase of PCF coated papers??														

Information from Conservatree. Checking to determine which products are distributed locally.

Certification Acronyms:

CFPA: Chlorine Free Products Association- PCF, min postconsumer content, no old growth forest fibers, no mill environ violations

EcoLogo: Canadian symbol for environ products meeting a reduced "environmental burden"

FSC: at least 70% of fiber in paper is from forests certified as sustainable managed by Forest Stewardship Council

Green Seal: certifies products that meet its minimum environmetnal criteria

SCS: certification by Scientific Certification Systems, which verifies specific environmental claims

***Information from Clark Fork Colalition**

Alternatives to PVC Building Products

Building Use	Alternative	Pros/Cons
Siding	Solid Wood	if chosen, should be second-growth softwoods (not redwood/cedar)
	Plywood	
	Strand board	
	Wood-resin composites	more familiar as decking; durable
	Stucco	durable; fire resistant; permeable to moisture
	Fiber cement	durable; fire resistant; permeable to moisture
	Masonry	walls don't need siding; durable; maintenance-free
	Aluminum	durable; maintenance-free; contain high amt recycled content; easily recycled
Underground Sewage/Water Pipes	Vitrified clay	4-5x longer life than PVC system; high resistance to chemicals
	Chlorine-free plastics (i.e. HDPE, PE, PP, ABS, PEX*)	
	Ductile Iron	
Aboveground drainage/water	Zinc	
	Cast iron	deadens sound of running water most effectively
	Copper	totally recyclable
	Galvanized steel	
	Aluminum	
	MDPE	more flexible than PVC
Electrical conduit insulation/sheathing	polyethylene	
	rubber	
	thermoplastic elastomers	
Floor	easy to find, competitively priced, perform as well if not better	
	Ceramic tiles	highly durable, fairly inexpensive, recyclable
	Marble	highly durable
	Stone	durable, easily maintained; get locally quarried, fragile in transit
	Concrete	easy, cheap; cold, hard
	Terratile, Terrazo, Adobe	durable, low maintenance; higher installation costs, may retain water if not sealed
	Wood	renewable woods, salvaged wood, hardwood veneer laminated over subgrade of low-grade wood or plywood
	Cork	strong, insulator, easy to install, \$3-4/ft ²
	Bamboo	strong, durable; imported, not widely available
	Natural Linoleum	durable, easily maintained, good performance
	Rubber	use recycled rubber, durable, best for outdoors (odor)
	Carpet	jute and urethane are alternatives to PVC carpet backing
Wall coverings	paint	
	tiles	
	paper-based wallpaper	
	polyethylene	
	polyester	
	natural fiber-based wallpapers	
Window frames	wood	
	engineered wood	
	aluminum/steel	
	fiberglass	durable, strong, stable, low maintenance; hard to recycle
Single ply roofs	Ethylene propylene diene monomer (EPDM)	
	polyolefin sheeting (Carlisle; HDR's roof of choice)	
	chlorosulfonated polyethylene (CSPE/Hypalon)	
Gutters	galvanized iron	
	copper	
	aluminum	
Shutters and blinds	wood	
	aluminum	
	chlorine-free plastics	
Handrails, guardrails	aluminum/wood composite	

*Not yet approved by the State of CA for potable water use in residential or commercial construction.

Bold category (Floor) may be one good one to focus on, as there appear to be good alternatives